



## Linking corporate social responsibility, intellectual capital and corporate financial performance: Evidence from banking company in Indonesia

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### Abstract

Finding empirical evidence on the role of CSR and intellectual capital to improve financial performance is the aim of this study. The banking companies listed on the Indonesian Stock Exchange (BEI) for the period 2012–2018 used as sample in this research. The information presented in the annual report is secondary data used in this study. Structural equation modeling (SEM) with Warp PLS 4.0 is a data analysis technique used. The result of research shows that CSR has positive effect on financial performance, CSR has positive effect on intellectual capital, intellectual capital has positive effect on financial performance, intellectual capital mediates positive influence of CSR on financial performance, and financial performance has positive effect on CSR. The implication of this research is to give a viewpoint to the company about the importance of CSR to create personal branding so that it will have an impact on company's financial performance.

**Keywords:** Corporate social responsibility, intellectual capital, and financial performance

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### 1. Introduction

The cases in company of Apple, Canon, Coca-Cola and Walmart [1] become an example of the lack of corporate awareness of their social responsibilities. Coca-Cola was boycotted in India because the local people were suffered from drought. Walmart was caught using child labor at factories in Bangladesh, and the suicide at the Apple factory [1]. This incident should provide a view to the company to be more responsible for social and environmental issues or often called corporate social responsibility (CSR). In other words, companies are no longer faced with responsibilities that are grounded in a single bottom line, that is, the value of a company that is reflected in its financial condition. Awareness of the importance of CSR is based on the notion that companies not only have economic and legal obligations to shareholders, but also obligations to other interested parties. CSR shows that corporate responsibility must be based on triple bottom lines, namely corporate responsibility in social, environmental and financial aspects. All CSR activities undertaken by the company are costly. This triggers the company to calculate the trade of cost and benefit, so there is an ambiguity between social motives and economic motives which will be experienced by the

company. This will become the company's consideration in conducting CSR activities. Companies will allocate more resources for CSR activities if it has a positive impact to maximize profits as it will improve financial performance. However, companies will be more careful in allocating resources if negative impacts on CSR activities occur [2]. Friedman [3] stated that the investments allocated for CSR activities will reduce the opportunity to utilize resources, thus reducing maximum profitability. So this will trigger a conflict of interest [4].

However, Tu and Huang [5] have different views. Based on the perspective of stakeholder theory, the investments allocated for CSR activities can strengthen the relationship of companies and stakeholders, so it can assist stakeholders in controlling their resources. This is in line with Orlitzky, et al. [6] statement, if the company's resources are used for CSR activities it will improve the company's image in the public eye, and according to Greening and Tuban [7] it can also increase employee attractiveness. So that it will increase the competitive advantage of the company [8] so that the financial performance of the company will increase ultimately [9]. The research results of related to these subject are varied. Uadiale et al. [10]; Bedi et al. [11]; Bird et al. [9] proves that CSR has a positive effect on financial performance. As well as

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Noughton et al. (2015), in his research found the evidence that the CSR which is not allocated for charity and it wasn't improving financial performance. Instead, the company has CSR expenditure in the current period to anticipate a stronger future financial performance. Nevertheless Babalola, 2012; Barnett and Solomon, [12]; Orlitzky [6] found the contrary evidence, where CSR has a negative effect on financial performance. While Surroca [13] found evidence that CSR relationships and financial performance are confusing and unidentified.

On the other hand, the research from Ramadhani and Mashariono [14] and Rambe and Wira [15] proves that financial performance has a positive effect on CSR. In the contrary, the research of Wardhani and Sugiharto [16] and Anggraini [17] gives the opposite result, which is financial performance has a negative effect on CSR. Based on the findings of the research, it can be concluded that CSR and financial performance have reciprocal relationship. To clarify the various theoretical point of view and research results, it needs additional variable [13]. This study will add intellectual capital variable as a mediator between CSR activities on financial performance. The result of this study is expected to explain the direct or indirect effect of CSR activities on financial performance. The research findings from Lin et al. [2] provides the evidence that intellectual capital mediates the influence of CSR on financial performance. Based on the argumentation and previous research results, the research questions related to CSR, intellectual capital and financial performance, are as follows: 1) does CSR has a positive effect on financial performance?, 2) does financial performance has a positive effect on CSR?, 3) does CSR has an effect positive to intellectual capital?, 4) does intellectual capital have a positive effect on financial performance?, 5) does intellectual capital mediate the positive influence of CSR on financial performance?

## 2. Literature Review and Hypothesis Development

The stakeholder theory is grand theory in this research. The CSR activities are conducted by the company to establish relationships with employees, surrounding communities, the environment and to improve corporate governance, so that corporate expenses will increase. As result, a shifting focuses in the company's from maximizing shareholder value on the wider interests of stakeholders. However, it will have a positive effect on the company's performance [18]. The CSR activities will contribute to the development of corporate's impression to the public so it will improve employee's productivity [7], and this is in accordance with stakeholder theory. Research conducted by Lin, et al. [2] and Bird [9] proves that CSR has a positive effect on financial performance. Based on the argumentation and the support of previous research. H<sub>1</sub>: CSR has a positive and significant impact

on financial performance.

The establishment and development of a company can not be separated from the role of stakeholders. Stakeholders will influence and be influenced by the existence of the company. In order to maintain company's existence, the company should carry out the social responsibility towards stakeholders: the employees, the surrounding community, and the surrounding environment. The achievement of good financial performance will tend to make the company more concerned and responsible to its stakeholders, because this will establish a personal branding for the company. These CSR activities will not bring disadvantage to the company, otherwise it will maintain the company's sustainability, and at the same time it becomes the company's long-term strategy. Research conducted by Ramadhani and Mashariono [14] and Rambe and Wira [15] proves that financial performance has a positive effect on CSR. H<sub>2</sub>: Financial performance has a positive and significant effect on CSR.

Perspective of stakeholder theory states that investment in CSR activities can improve the relationship between companies and stakeholders, thus helping companies securing resources controlled by stakeholders [5]. Based on resource-based views, a valuable, scarce, in imitable, and non-replaceable corporate resources can contribute to the achievement of a company's competitive advantage [19]. If this resource is allocated for CSR activities, they will improve the company's impression and reputation in the public eye [6], increase employee appeal, increase customer confidence [7], and as a result, it increases competitive advantage [8] and improves the company's financial performance [9]. With investments related to CSR, the company will increase its intellectual capital. H<sub>3</sub>: CSR has positive and significant effect on intellectual capital.

Intellectual capital is one of the most important intangible resources in generating value for the company [20]. Carmeli and Tishler [21] states that the value of a company is an investment function of intellectual capital. Some researchers conclude that compared to other resources, intellectual capital is one of the main sources that has a competitive advantage [22]. Tan et al. [23] found evidence that intellectual capital is positively correlated with the company's future performance, and the growth rate of the company's intellectual capital is positively related to the company's performance. H<sub>4</sub>: Intellectual capital has a positive and significant effect on financial performance.

McWilliams and Siegel [24] explained that the relationship between CSR activities and financial performance that aims to invest, not only directly, but through mediation variables such relations it can be an indirect relationship with the concept and character of CSR. Similarly, Surroca et al. [13] stated that other variables may mediate the relationship between CSR and financial performance. Lin et al. [2] stated that

companies that invest in CSR activities will increase the intellectual capital of a company, there by it will improve the company's financial performance. The research findings by Lin et al. [2]; Surroca et al. [13] and McWilliams and Siegel [24] suggest that there are other variables that mediate the effect of CSR on financial performance. H<sub>5</sub>: Intellectual capital mediates the positive influence of CSR on financial performance.

### 3. Research Method

All financial companies listed on the Indonesia Stock Exchange (BEI) during the period of 2012-2018 used as the population in this study. Sampling uses a purposive sampling method that aims to get a representative sample in accordance with specified criteria. The sample criteria. The sample criteria used are as follows: 1) banking companies listed on the IDX for the period 2012–2018, 2) the rupiah exchange rate is used in the presentation of financial statements, 3) complete data related to the variables used in the research. The reason why choosing a banking company is used as a research sample because it is based on PO OJK regulation No. 51 of 2017 banking companies in Indonesia are mandatory to make sustainable reporting.

The variables used in this research are CSR, intellectual capital and financial performance. According to Lin, et al. [2] the measurements of CSR in a various number of theoretical and empirical studies existed in many different objects. The CSR in this study measured using the total CSR costs allocated by the company in one period. The measurement of intellectual capital in this study in accordance with which developed by Pulic [31].

$$VA = OUT - IN \quad (1)$$

$$VACE = VA/CE \quad (2)$$

$$VAHC = VA/HC \quad (3)$$

$$VASC = SC/VA \quad (4)$$

$$VAIC^{TM} = VACE + VAHC + VASC \quad (5)$$

Where:

*OUT* = total sales and other revenue

*IN* = costs and expenses (besides personnel expenses)

*CE* = available funds (equity, net income)

*HC* = personnel expenses

*SC* = difference between VA and HC.

Such financial performance is proxied through Return on Assets (ROA). McWilliams and Siegel [24] stated that ROA and ROE is used as a basis for measuring manager's performance in decision making process. ROA is a reflection of the company's performance in generating profit from the resources (assets) it has. Measurement of ROA by using: net profit or loss after tax/total assets of the company. Partial Least

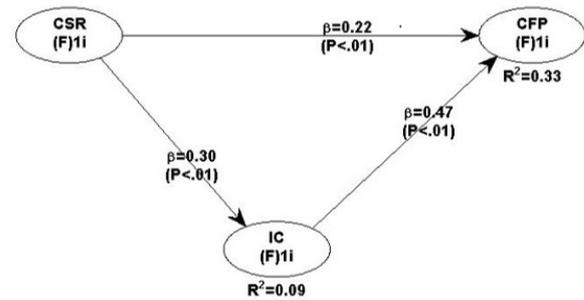


Figure 1: Indirect test results CSR, IC, and CFP.

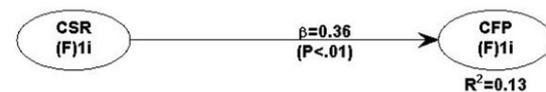


Figure 2: Direct test results CSR on CFP.

Squares-Structural Equation Modeling (SEM) analysis is used to perform path analysis (path analytic) with latent variables. PLS can be used with data collected through secondary data [25,26, 27]. The statistical analysis was chosen as it offers several advantages [28]. Path analysis is used to analyze the pattern of relationships between variables with the aim to determine the direct or indirect influence of a set of independent variables on the dependent variable. To identify the direct or indirect influence of each research variable can be explained as follows, if contribution of direct influence between CSR to financial performance is smaller than indirect influence through intellectual capital, then intellectual capital is proved as intervening variable.

### 4. Result and Discussion

47 banking companies were engaged in the banking industry (ICMD, 2018). Some of the companies were not chosen in the sample due to some certain criterias. The data sets employed in the main analysis consisted of the time series data of 140 annual reports from 20 banking companies during the period 2012 to 2018.

The model estimation results indicate that the criteria of goodness of fit have been met, the values of Average R-square (ARS) and Average Path Coefficient (APC) are statistically significant, and the value of Average Variance Inflation Factor (AVIF) is smaller than 5 [29]. These results are presented in the Table 1.

#### 4.1. The influence of CSR on financial performance

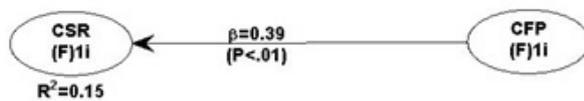
Table 1 shows that the significance value <0.001 with a positive beta value 0.224 means that the first hypothesis is accepted. This means that CSR has a significant positive effect on financial performance proxied by ROA, which means the greater the cost of CSR

**Table 1.** Hypothesis testing results.

Path	Direct Effect		Indirect Effect		Remark
	Coefficient	p-value	Coefficient	p-value	
CSR → CFP	0,362	<0,001***	0,224	0,001***	H <sub>1</sub> is accepted
CFP → CSR	0,390	<0,001***			H <sub>2</sub> is accepted
CSR → IC			0,298	<0,001***	H <sub>3</sub> is accepted
IC → CFP			0,469	<0,001***	H <sub>4</sub> is accepted
<b>Model Fit Indicators</b>					
Average Path Coefficient (APC)	0,362	<0,001***	0,330	<0,001***	
Average R-square (ARS)	0,131	0,022**	0,210	0,003***	
Average Variance Inflation Factor (AVIF)	1,000	1,095			

**Source:** the processing results of PLS, 2019

**Note:** \*, \*\*, and \*\*\* indicate significance (one-tailed) at the 0,10; 0,05; and 0,01 levels, respectively.

**Figure 3:** Direct test results CFP on CSR.

allocated by the company, the higher the ROA will increase. So it can be concluded that the cost of CSR allocated by the company will increase personal branding company which will ultimately improve the financial performance of the company. The result of this study is in accordance with the results of research conducted by Lin et al. [2] and Bird [9].

#### 4.2. The influence of financial performance on CSR

The achievement of good financial performance will tend to make the company more concerned and responsible to its stakeholders, because this will establish a personal branding for the company. In addition, the important thing to remember is that the company can not stand alone without any stakeholder so that the existence of stakeholders will affect and influenced by the existence of the company. The CSR activities undertaken by the company aims to enhance personal branding that can also be used as a long-term strategy for the sustainability of the company. This is proved by the results of data processing which shows the significance value for financial performance variables proxied with ROA to CSR <0.001 with a positive value beta 0.390 (see Table 1). The findings of this study are in line with research conducted by Ramadhani and Mashariono [14] and Rambe and Wira [15] proved that financial performance has a positive effect on CSR.

#### 4.3. The influence of CSR on intellectual capital

The results presented in Table 1 and Fig. 1 shows that the value of significance for CSR variable to intellectual capital 0.001 with a positive beta value 0.298.

This means that the costs allocated in relation to the CSR of the company will increase its intellectual capital. The more companies incur costs for CSR activities then the higher personal branding of the company will increase, so this will become an employee attraction that will ultimately increase the company's intellectual capital which is an intangible resource for the company. The research findings from Lin et al. [2] reinforces the findings of research by proving that CSR has a positive effect on intellectual capital.

#### 4.4. The influence of intellectual capital on financial performance

The information presented in table 1 and figure 1 stated that the value of intellectual capital significance to financial performance proxied by ROA shows <0,001 with beta value 0.469, this means that the fourth hypothesis is accepted. This means that the higher the company's intellectual capital, it will improve the company's financial performance. Intellectual capital is an intangible resource owned by the company, if the resources are educated, trained, and continuously improved then these resources will be better so that it can work optimally which will ultimately improve the company's performance. The findings are in line with Nuryaman [30] which proves that intellectual capital has a positive effect on corporate value and has a positive impact on its profitability so that it has a positive impact on market value and financial performance and can be used as an indicator of future financial performance. The results of this study support the research of Lin, et al. [2].

#### 4.5. Intellectual capital mediating the influence of CSR on financial performance

The influence of CSR on financial performance can be seen directly, however, according to McWilliams and Siegel [24] and Surroca et al. [13] stated that the influence of CSR on financial performance can be mediated by other variables. The findings of this

study indicate that the significance value  $<0,001$  and beta value indicates a positive direction 0,362 to direct effect and indirect effect show that the significance value  $<0,001$  and beta value indicates a positive direction 0,224, means that the fifth hypothesis is accepted. This proves that intellectual capital variables proved able to mediate the influence of CSR on financial performance proxied by ROA. The result of this study is in line with research conducted by Lin, et al. [2] which proved that intellectual capital mediates the influence of CSR on financial performance. As well as Surroca et al. [13] and McWilliams and Siegel [24] which proved that there are other variables that mediate the influence of CSR on financial performance so the relationship between CSR and financial performance becomes an indirect relationship.

#### 4.6. Testing the significance of mediating effects

The mediating effect will be significant if three following criteria are met: 1. In the first model (Fig. 2), the path between CSR  $\rightarrow$  CFP is significant 2. In the second model (Fig. 1), the path between CSR  $\rightarrow$  IC is significant 3. In the second model (Fig. 1), the path between IC  $\rightarrow$  CFP is significant. In the second model, the path between CSR  $\rightarrow$  CFP controls the effect of IC. The effect of CSR on CFP in the second model is irrelevant for this mediation significance test. Nevertheless, if the effect of CSR on CFP in the second model is insignificant, this would indicate that the case is one of “perfect” mediation. On the other hand, if the effect of CSR on CFP in the second model is significant, this shows that the case is “partial” mediation. Generally, the weaker the effect of CSR on CFP in the second model, the more “perfect” the mediation is, providing these three criteria are met [29]. The results show that the coefficient of the direct effect of CSR on CFP in the first model (Fig. 2) is 0,362 and significant ( $p < 0,01$ ). In the second model, the results show that the coefficient of the indirect effect of CSR on CFP is decreased (0,224) and significant ( $p < 0,01$ ). Therefore, it can be concluded that IC has partially mediated the effect of CSR on CFP. This partial mediation indicate that IC is not the only mediator of the relationship between CSR and CFP.

## 5. Conclusion

The conclusion of this research is that CSR variable and financial performance proven to have reciprocal relationship. The CSR variable directly affects the financial performance proxied by ROA. Similarly, when intellectual capital acts as a mediating variable or indirectly, intellectual capital mediates the influence of CSR on financial performance. The implication of this research is to give a viewpoint to the company about the importance of CSR to create personal branding so that it will have an impact on company's

financial performance. While the limitations of this research is the object of research only refers to only one type of company, which is banking companies, so that the results of this study can not generalized to all types of companies listed on the Indonesia Stock Exchange. Based on limitation, the suggestion for future research is the object of the research not focusing banking companies but all types of companies, so that the results can generalized to all types of companies listed on the Indonesia Stock Exchange.

## References

- [1] C. A. C. Torres, M. G. French, R. Hordijk, K. Nguyen, L. Olup, Four case studies on corporate social responsibility: Do conflicts affect a company's corporate social responsibility policy?, *Utrecht Law Review* 8(3) (2012).
- [2] C. S. Lin, R. Y. Chang, V. T. Dang, An integrated model to explain how corporate social responsibility affects corporate financial performance, *Sustainability* 7 (2015) 8292–8311.
- [3] M. Friedman, A friedman doctrine: The social responsibility of business is to increase it profits, *The New York Times Magazine*, 1970.
- [4] M. Barnett, Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. *The Academy of Management Review*, 32 (2007) 794–816.
- [5] J. C. Tu, H. S. Huang, Analysis on the relationship between green accounting and green design for enterprises, *Sustainability* 7 (2015) 6264–6277.
- [6] M. Orlitzky, F. L. Schmidt, S. L. Rynes, Corporate social and financial performance: A meta-analysis, *Organization Studies* 24 (2003) 403–441.
- [7] D. W. Greening, D. B. Turban, Corporate social performance as a competitive advantage in attracting a quality workforce, *Business & Society* 39 (2000) 254–280.
- [8] A. Sharairi, J. Adel, The impact of environmental costs on the competitive advantage of pharmaceutical companies in Jordan, *Middle Eastern Finance and Economics* 15 (2011).
- [9] R. Bird, A. Hall, F. Momente, F. Reggiani, What corporate responsibility activities are valued by the market? *Journal of Business Ethics* volume, 76 (2007) 189–206.
- [10] O. M. Uadiale, T. O. Fagbemi, Corporate social responsibility and financial performance in developing economics: The Nigeria experience, *Journal of Economics and Sustainable Development* 3(4) (2012) 44 – 54.
- [11] H. S. Bedi, Financial performance and social responsibility: Indian scenario, working paper, Available from: <http://www.ssrn.com>. (accessed 29 December 2010)
- [12] M. L. Barnett, R. M. Solomon, Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance, *Strategic Management Journal* 27(11) (2006) 1101–1122.
- [13] J. Surroca, J. A. Tribo, S. Waddock, Corporate responsibility and financial performance: The role of intangible resources, *Strategic Management Journal*, 31 (2010) 463–490.
- [14] F. N. Ramadhani, Mashariono, Analysis of the influence of financial performance on corporate social responsibility, *Journals Science and Management Research* 6(7) (2017).
- [15] M. Rambe, M. Wira, Analysis of the effect of financial performance on corporate social responsibility, *Journals of Business Administration* 9(10) (2013).
- [16] G. D. Wardhani, S. Toto, Effect of financial performance, firm size and environmental performance on the intensity of disclosure of the implementation of corporate social responsibility, *Proceedings of Psychology, Economics, Literature, Architecture and Civil Engineering*, 2013, E128–E139.
- [17] F. R. R. Anggraini, Disclosure of social information and the factors influencing disclosure of social information in the annual financial statements (Empirical studies on companies

- listed on the Indonesia stock exchange), National Symposium on Accounting IX, University of Sanata Dharma Yogya, Padang, 2006.
- [18] L. E. Preston, D. P. O'Bannon, The corporate social-financial performance relationship, *Business & Society* 36 (1997) 419–429.
- [19] J. Barney, Firm resources and sustained competitive advantage, *Journal of Management* 17 (1991) 99–120.
- [20] M. R. Haas, M. T. Hansen, When using knowledge can hurt performance: The value of organizational capabilities in a management consulting company, *Strategic Management Journal* 26 (2005) 1–24.
- [21] A. Carmeli, A. Tishler, The relationships between intangible organizational elements and organizational performance, *Strategic Management Journal* 25 (2004) 1257–1278.
- [22] N. Bontis, Assessing knowledge assets: A review of the models used to measure intellectual capital, *International Journal of Management Reviews* 3 (2001) 41–60.
- [23] H. P. Tan, D. Plowman, P. Hancock, Intellectual capital and financial returns of companies, *Journal of Intellectual Capital* 8, 76–95.
- [24] A. McWilliams, D. Siegel, Corporate social responsibility and financial performance: Correlation or misspecification?, *Strategic Management Journal* 21 (2000) 603–609.
- [25] C. D. Ittner, D. F. Larcker, M. V. Rajan, The choice of performance measures in annual bonus contracts, *Accounting Review* 72(2) (1997) 231–255.
- [26] S. Papadopoulos, Y. Amemiya, Correlated samples with fixed and nonnormal latent variables, *The Annals of Statistics* 33 (6) (2005) 2732–2757.
- [27] L. Lee, S. Petter, D. Fayard, S. Robinson, On the use of partial least squares path modeling in accounting study, *International Journal of Accounting Information Systems* 12(4) (2011) 305–328.
- [28] J. Hair, W. Black, B. Babin, R. Anderson, *Multivariate data analysis: A global perspective*, 7th ed., New Jersey: Pearson, 2010.
- [29] N. Kock, Using warp PLS in e-collaboration studies: Mediating effects, control and second order variables, and algorithm choices, *International Journal of e-Collaboration* 7(3) (2011) 1–13.
- [30] Nuryaman, The influence of intellectual capital on the firm's value with the financial performance as intervening variable, 2nd Global Conference on Business and Social Science, Bali, Indonesia, 2015.
- [31] A. Pulic, Measuring the performance of intellectual potential in knowledge economy. the 2nd McMaster World Congress on Measuring and Managing Intellectual Capital, the Austrian Team for Intellectual Potential, 1998.
- [32] B. Y. Abiodun, The impact of corporate social responsibility on firms profitability in Nigeria, *European Journal of Economics, Finance and Administrative Sciences* 45 (2012).
- [33] R. E. Freeman, J. McVea, A stakeholder approach to strategic management, Available from: <http://www.ssrn.com>.
- [34] R. Gray, M. Javad, P. M. David, S. C. Donald, Social and environmental disclosure, and corporate characteristic: A research note and extension, *Journal of Business Finance and Accounting* 28 (3) (2001) 327–356.
- [35] C. W. Hill, T. M. Jones, Stakeholder agency theory, *Journal of Management Studies* 29 (1992) 131–154.
- [36] W. Svante, et al., The collinearity problem in linear regression, The partial least squares (PLS) approach to generalized inverses, *SIAM Journal on Scientific and Statistical Computing* 5 (3) (1974) 735–743.